

Abstract

A remote control system for testing the ready status of lighting fixtures such as emergency exit signs and for operating such fixtures as by controlling the off/on status and dimming of the illumination in a high infrared and EMI noise environment. The transmitted control signal is an infrared beam containing a selected pulse-time code which the receiving circuit can reliably receive, recognize and process in an environment of high infrared noise typically produced by fluorescent lighting. Upon recognition and verification of the selected pulse-time code, in the ready status testing, the microcontroller disenables the charging circuit to the battery for supplying power to the exit sign in the emergency mode to cause the emergency circuit to sense an AC power failure whereby the lamp illuminates in the emergency mode for the selected test period. For the lighting fixture control, upon recognition and verification of the selected pulse-time code, the microcontroller outputs a signal to cause the lamp in the fixture to illuminate or go dark, or to change level of illumination. In preferred embodiments the detector for the infrared beam is in a grounded housing which is mounted in the lighting fixture, the cable connecting the detector to the microcontroller are all surrounded with an electrically conductive shielding which is grounded to the microcontroller.